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L1: Entry 1 of 6

File: DWPI

Oct 13, 2000

DERWENT-ACC-NO: 2001-094942

DERWENT-WEEK: 200128

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TITLE: Optical recording medium, comprises semi-transparent reflecting film of silver-palladium-copper alloy, laminated on information layers

INVENTOR: ARATANI, K; IWASAKI, M ; JINUSHI, K ; MIYAKE, R ; UENO, T

PATENT-ASSIGNEE:

ASSIGNEE

FURUYA KINZOKU KK

SONY CORP

SONY DISK TECHNOLOGY KK

FURUYAMETALS CO LTD

SONY DISC TECHNOLOGY INC

CODE

FURUN

SONY

SONY

FURUN

SONY

PRIORITY-DATA: 1999JP-0089071 (March 30, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2000285517 A	October 13, 2000		010	G11B007/24
US 6228457 B1	May 8, 2001		000	B32B003/00

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP2000285517A	March 30, 1999	1999JP-0089071	
US 6228457B1	September 20, 1999	1999US-0399108	

INT-CL (IPC): B32 B 3/00; C22 C 5/06; G11 B 7/24

ABSTRACTED-PUB-NO: JP2000285517A

BASIC-ABSTRACT:

NOVELTY - Optical recording medium (6) comprises information layers (9,10) laminated to a reflective film (5). Semi-transparent reflecting films (3,4) are present on the information layers. The semi-transparent reflecting film comprises a thin film of silver-palladium-copper (Ag-Pd-Cu) alloy consisting of 0.5-3 weight% of palladium and 0.1-3 weight% of copper.

USE - For optical recording.

ADVANTAGE - The semi-transparent reflecting film has good weather resistance and improved bondability with substrates. The presence of the semi-transparent reflecting film enhances the reliability of the recording medium. Semi-transparent film of required thickness is obtained.

DESCRIPTION OF DRAWING(S) - The figure shows the drawing of the recording medium with

the semitransparent reflecting film.

Semi-transparent reflecting films 3,4

Reflective film 5

Optical recording medium 6

Information layers 9,10

ABSTRACTED-PUB-NO:

US 6228457B

EQUIVALENT-ABSTRACTS:

NOVELTY - Optical recording medium (6) comprises information layers (9,10) laminated to a reflective film (5). Semi-transparent reflecting films (3,4) are present on the information layers. The semi-transparent reflecting film comprises a thin film of silver-palladium-copper (Ag-Pd-Cu) alloy consisting of 0.5-3 weight% of palladium and 0.1-3 weight% of copper.

USE - For optical recording.

ADVANTAGE - The semi-transparent reflecting film has good weather resistance and improved bondability with substrates. The presence of the semi-transparent reflecting film enhances the reliability of the recording medium. Semi-transparent film of required thickness is obtained.

DESCRIPTION OF DRAWING(S) - The figure shows the drawing of the recording medium with the semitransparent reflecting film.

Semi-transparent reflecting films 3,4

Reflective film 5

Optical recording medium 6

Information layers 9,10

CHOSEN-DRAWING: Dwg.1/4

TITLE-TERMS: OPTICAL RECORD MEDIUM COMPRISE SEMI TRANSPARENT REFLECT FILM SILVER PALLADIUM COPPER ALLOY LAMINATE INFORMATION LAYER

DERWENT-CLASS: G06 L03 M26 P73 T03 W04

CPI-CODES: G06-C06; G06-D07; L03-G04B; M26-B01; M26-B01C; M26-B01N;

EPI-CODES: T03-B01; W04-C01;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-028323

Non-CPI Secondary Accession Numbers: N2001-072010

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L1: Entry 2 of 6

File: DWPI

Sep 29, 2000

DERWENT-ACC-NO: 2001-400521  
DERWENT-WEEK: 200170  
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TITLE: Optical disk manufacture involves forming reflecting film on recording face of ultraviolet curable resin layer formed by irradiating ultraviolet rays on transparent sheet laminated over reflecting film on substrate

INVENTOR: FUJIMORI, J; MARUYAMA, H ; MOTOKAWA, M

## PATENT-ASSIGNEE:

ASSIGNEE	CODE
PIONEER ELECTRONIC CORP	PIOE
PIONEER VIDEO KK	PIOE
PIONEER CORP	PIOE
PIONEER VIDEO CORP,	PIOE

PRIORITY-DATA: 1999JP-0073973 (March 18, 1999)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2000268417 A	September 29, 2000		008	G11B007/26
<u>US 6312547 B1</u>	November 6, 2001		000	B24B031/20

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP2000268417A	March 18, 1999	1999JP-0073973	
US 6312547B1	March 17, 2000	2000US-0531126	

INT-CL (IPC): B24 B 31/20; G11 B 7/26

ABSTRACTED-PUB-NO: JP2000268417A  
BASIC-ABSTRACT:

NOVELTY - Reflecting film (4) is formed on the recording surface of substrate (3). Ultraviolet rays or irradiated on the transparent sheet (14) laminated on the reflecting film (4) to form ultraviolet curable resin layer (17). Reflecting film (6) that has higher reflecting rate, is formed on the recording face of ultraviolet curable resin layer.

USE - For manufacturing optical disk that has multilayer recording face.

ADVANTAGE - Intermediate ultraviolet curable resin layer provided between the recording surfaces enhances the reliability at the time of reading information signal on the recording face above the resin layer, hence optical disk with multilayer recording face is manufactured efficiently.

DESCRIPTION OF DRAWING(S) - The figure shows the principal portion sectional view of optical disk.

Substrate 3

Reflecting films 4,6

Transparent sheet 14

Ultraviolet curable resin layer 17

ABSTRACTED-PUB-NO:

US 6312547B

EQUIVALENT-ABSTRACTS:

NOVELTY - Reflecting film (4) is formed on the recording surface of substrate (3). Ultraviolet rays or irradiated on the transparent sheet (14) laminated on the reflecting film (4) to form ultraviolet curable resin layer (17). Reflecting film (6) that has higher reflecting rate, is formed on the recording face of ultraviolet curable resin layer.

USE - For manufacturing optical disk that has multilayer recording face.

ADVANTAGE - Intermediate ultraviolet curable resin layer provided between the recording surfaces enhances the reliability at the time of reading information signal on the recording face above the resin layer, hence optical disk with multilayer recording face is manufactured efficiently.

DESCRIPTION OF DRAWING(S) - The figure shows the principal portion sectional view of optical disk.

Substrate 3

Reflecting films 4,6

Transparent sheet 14

Ultraviolet curable resin layer 17

CHOSEN-DRAWING: Dwg.1/5

TITLE-TERMS: OPTICAL DISC MANUFACTURE FORMING REFLECT FILM RECORD FACE ULTRAVIOLET CURE RESIN LAYER FORMING IRRADIATE ULTRAVIOLET RAY TRANSPARENT SHEET LAMINATE REFLECT FILM SUBSTRATE

DERWENT-CLASS: P61 T03 W04

EPI-CODES: T03-B01E; W04-C01E;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N2001-295324

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L1: Entry 4 of 6

File: DWPI

Apr 24, 1998

DERWENT-ACC-NO: 1998-302766

DERWENT-WEEK: 200120

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TITLE: Optical recording medium production - comprises simultaneously moulding first and second fine corrugated surfaces on both surfaces of substrate of medium

INVENTOR: ARAKAWA, N; KASHIWAGI, T ; TAKEDA, M

PATENT-ASSIGNEE:

ASSIGNEE

CODE

SONY CORP

SONY

PRIORITY-DATA: 1996JP-0256644 (September 27, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 10106049 A	April 24, 1998		008	G11B007/26
<u>US 6210609 B1</u>	April 3, 2001		000	B29D011/00

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 10106049A	September 27, 1996	1996JP-0256644	
US 6210609B1	September 24, 1997	1997US-0936578	

INT-CL (IPC): B29 C 45/00; B29 D 11/00; B29 L 17:00; G11 B 7/26

ABSTRACTED-PUB-NO: JP 10106049A

BASIC-ABSTRACT:

An optical recording medium has a first fine corrugated surface and a second fine corrugated surface. The optical recording medium is produced by simultaneously moulding the first and the second fine corrugated surface on both the surfaces of the substrate of the optical recording medium.

USE - Used for the production of an optical recording medium used in a multilayered optical disc.

ADVANTAGE - An optical recording medium having good structural symmetry is obtained. The structural symmetry relaxes deformation caused by set contraction in a photosetting resin, adsorption of moisture in air, dewatering in the substrate, or a transparent intermediate film. The use of the simultaneous moulding or simultaneous embossing enhances productivity in the production of multilayered optical discs.

ABSTRACTED-PUB-NO:

US 6210609B

EQUIVALENT-ABSTRACTS:

An optical recording medium has a first fine corrugated surface and a second fine

corrugated surface. The optical recording medium is produced by simultaneously moulding the first and the second fine corrugated surface on both the surfaces of the substrate of the optical recording medium.

USE - Used for the production of an optical recording medium used in a multilayered optical disc.

ADVANTAGE - An optical recording medium having good structural symmetry is obtained. The structural symmetry relaxes deformation caused by set contraction in a photosetting resin, adsorption of moisture in air, dewatering in the substrate, or a transparent intermediate film. The use of the simultaneous moulding or simultaneous embossing enhances productivity in the production of multilayered optical discs.

CHOSEN-DRAWING: Dwg.1/18

TITLE-TERMS: OPTICAL RECORD MEDIUM PRODUCE COMPRISE SIMULTANEOUS MOULD FIRST SECOND FINE CORRUGATED SURFACE SURFACE SUBSTRATE MEDIUM

DERWENT-CLASS: A89 L03 T03 W04

CPI-CODES: A11-C04C; A12-L03C; L03-G04B;

EPI-CODES: T03-B01D1; T03-B01D6; T03-B01E3X; T03-B01E5; W04-C01E;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1] 018 ; P0000 ; S9999 S1434 Polymer Index [1.2] 018 ; Q9999 Q8935\*R Q8924 Q8855 ; N9999 N6484\*R N6440 ; N9999 N7001 ; K9483\*R ; K9676\*R ; ND07 ; N9999 N6462 N6440

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1998-094146

Non-CPI Secondary Accession Numbers: N1998-237342

**WEST**☐  

L22: Entry 5 of 6

File: JPAB

Jul 31, 1997

PUB-NO: JP409198712A  
DOCUMENT-IDENTIFIER: JP 09198712 A  
TITLE: OPTICAL INFORMATION RECORDING MEDIUM AND ITS PRODUCTION

PUBN-DATE: July 31, 1997

## INVENTOR-INFORMATION:

NAME

COUNTRY

ONO, EIJI

YAMADA, NOBORU

SAKAGAMI, YOSHITAKA

ISOMURA, HIDEKI

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

MATSUSHITA ELECTRIC IND CO LTD

APPL-NO: JP08009043

APPL-DATE: January 23, 1996

INT-CL (IPC): G11 B 7/24; C23 C 14/06; C23 C 14/34; G11 B 7/26

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide a photicrystalization type optical information recording medium having improved mechanical strength and improved overwrite cycle characteristics by making a dielectric layer into a mixture of ZnS and a silicon nitride oxide in which nitrogen is bonded to silicon in the film.

SOLUTION: At least a first dielectric layer 2, a recording layer 3 which is consisting of a material generating reversible changes between states capable of optically identifying by irradiation with laser beams and a second dielectric layer 4 are laminated on a substrate 1 and at least one among the first dielectric layer 2 and the second dielectric layer 4 is made into the mixture of ZnS and the silicon oxynitride. The dielectric layers 4 is formed by a sputtering method in an atmosphere of gaseous mixture composed of rare gas and nitrogen from a target consisting of a mixture of ZnS, SiO<sub>2</sub> and Si<sub>3</sub>N<sub>4</sub> and amount of ZnS in the dielectrics is preferably >40 to <95mol% and, further, mole ratio of Si<sub>3</sub>N<sub>4</sub>/SiO<sub>2</sub> is preferably in the range of 0.05 to 1.0.

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